



SEQUENCE LISTING

B'  
(1) GENERAL INFORMATION:

(i) APPLICANT:

- (A) NAME: Geron Corporation
- (B) STREET: 230 Constitution Drive
- (C) CITY: Menlo Park
- (D) STATE: California
- (E) POSTAL CODE (ZIP): 94025
- (F) TELEPHONE: (415) 473-7700
- (G) TELEFAX: (415) 473-7750
- (H) TELEX:

(i) APPLICANT:

- (A) NAME: Kim, Nam Woo
- (B) STREET: 541 Winterberry Way
- (C) CITY: San Jose
- (D) STATE: California
- (E) POSTAL CODE (ZIP): 95129
- (F) TELEPHONE:
- (G) TELEFAX:
- (H) TELEX:

(i) APPLICANT:

- (A) NAME: Wu, Fred
- (B) STREET: 1143 Greene Terrace
- (C) CITY: Davis
- (D) STATE: California
- (E) POSTAL CODE (ZIP): 94616
- (F) TELEPHONE:
- (G) TELEFAX:
- (H) TELEX:

(i) APPLICANT:

- (A) NAME: Kealey, James T.
- (B) STREET: 9 Mono Lane
- (C) CITY: San Anselmo
- (D) STATE: California
- (E) POSTAL CODE (ZIP): 94960
- (F) TELEPHONE:
- (G) TELEFAX:
- (H) TELEX:

(i) APPLICANT:

- (A) NAME: Pruzan, Ronald
- (B) STREET: 852 Matadero Avenue
- (C) CITY: Palo Alto
- (D) STATE: California
- (E) POSTAL CODE (ZIP): 94306
- (F) TELEPHONE:
- (G) TELEFAX:
- (H) TELEX:

(i) APPLICANT:

- (A) NAME: Weinrich, Scott L.

(B) STREET: 1830 Brewster Avenue  
(C) CITY: Redwood City  
(D) STATE: California  
(E) POSTAL CODE (ZIP): 94062  
(F) TELEPHONE:  
(G) TELEFAX:  
(H) TELEX:

(ii) TITLE OF INVENTION: Methods for Detecting and Inhibiting the  
RNA Component of Telomerase

(iii) NUMBER OF SEQUENCES: 29

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: Townsend and Townsend and Crew LLP  
(B) STREET: Two Embarcadero Center, Eighth Floor  
(C) CITY: San Francisco  
(D) STATE: California  
(E) COUNTRY: USA  
(F) ZIP: 94111-3834

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk  
(B) COMPUTER: IBM PC compatible  
(C) OPERATING SYSTEM: PC-DOS/MS-DOS  
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: WO PCT/US97/Not yet assigned  
(B) FILING DATE: Not yet assigned  
(C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: US 08/770,564  
(B) FILING DATE: 20-DEC-1996

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: US 08/770,565  
(B) FILING DATE: 20-DEC-1996

(viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Storella, John R.  
(B) REGISTRATION NUMBER: 32,944  
(C) REFERENCE/DOCKET NUMBER: 15389-27PC

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (415) 576-0200  
(B) TELEFAX: (415) 576-0300

(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 981 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(ix) FEATURE:

(A) NAME/KEY: -

(B) LOCATION: 1..981

(D) OTHER INFORMATION: /note= "PstI fragment of  
SauIIIA1-HindIII fragment of clone 28-1  
containing the sequence of the RNA  
component of human telomerase (hTR) "

(ix) FEATURE:

(A) NAME/KEY: misc\_RNA

(B) LOCATION: 266..716

(D) OTHER INFORMATION: /product= "RNA component of human  
telomerase (hTR) "

(ix) FEATURE:

(A) NAME/KEY: misc\_feature

(B) LOCATION: 311..320

(D) OTHER INFORMATION: /note= "template region of hTR"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

CTGCAGAGGA TAGAAAAAAG GCCCTCTGAT ACCTCAAGTT AGTTTCACCT TTAAAGAAGG	60
TCGGAAGTAA AGACGCAAAG CCTTTCCTCGG ACGTGCAGAA GGGCAACGTC CTTCTCATG	120
GGCGGAAATG GAACTTTAAT TTCCCCTTCC CCCCACCAG CCCGCCGAG AGAGTGACTC	180
TCACGAGAGC CGCGAGAGTC AGCTTGGCCA ATCCGTGCGG TCGGCGGCCG CTCCCTTTAT	240
AAGCCGACTC GCCCAGCAGC GCACCGGGTT GCGGAGGGTG GGCTGGGAG GGGTGGTGGC	300
CATTTTTTGT CTAACCCTAA CTGAGAAGGG CGTAGGCGCC GTGCTTTTGC TCCCCGCGCG	360
CTGTTTTTCT CGCTGACTTT CAGCGGGCGG AAAAGCCTCG GCCTGCCGCC TTCCACCGTT	420
CATTCTAGAG CAAACAAAAA ATGTCAGCTG CTGGCCCGTT CGCCCCTCCC GGGGACCTGC	480
GGCGGGTCGC CTGCCCAGCC CCCGAACCCC GCCTGGAGGC CGCGGTCGGC CCGGGGCTTC	540
TCCGGAGGCA CCCACTGCCA CCGCAAGAG TTGGGCTCTG TCAGCCGCGG GTCTCTCGGG	600
GGCGAGGGCG AGGTTCAAGC CTTTCAGGCC GCAGGAAGAG GAACGGAGCG AGTCCCCGCG	660
CGCGGCGCGA TTCCCTGAGC TGTGGGACGT GCACCCAGGA CTCGGCTCAC ACATGCAGTT	720
CGCTTTCCTG TTGGTGGGGG GAACGCCGAT CGTGCGCATC CCTCACCCTT CGCCGGCAGT	780
GGGGGCTTGT GAACCCCCAA ACCTGACTGA CTGGGCCAGT GTGCTGCAA TTGGCAGGAG	840
ACGTGAAGGC ACCTCCAAAAG TCGGCCAAAA TGAATGGGCA GTGAGCCGGG GTTGCCTGGA	900
GCCGTTCTTG CGTGGGTTCT CCCGTCTTCC GCTTTTTGTT GCCTTTTATG GTTGTATTAC	960

AACTTAGTTC CTGCTCTGCA G

981

(2) INFORMATION FOR SEQ ID NO:2:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 30 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..30
- (D) OTHER INFORMATION: /note= "oligo 14"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

CGTTCCTCTT CCTGCGGCCT GAAACGGTGA

30

(2) INFORMATION FOR SEQ ID NO:3:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 20 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..20
- (D) OTHER INFORMATION: /note= "oligo 14ab"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

CGTTCCTCTT CCTGCGGCCT

20

(2) INFORMATION FOR SEQ ID NO:4:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 12 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..12
- (D) OTHER INFORMATION: /note= "oligo 14d"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

CGTTCCTCTT CC

12

(2) INFORMATION FOR SEQ ID NO:5:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 30 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..30
- (D) OTHER INFORMATION: /note= "oligo 16"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

CTGACAGAGC CCAACTCTTC GCGGTGGCAG

30

(2) INFORMATION FOR SEQ ID NO:6:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..20
- (D) OTHER INFORMATION: /note= "oligo 16ab"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

CTGACAGAGC CCAACTCTTC

20

(2) INFORMATION FOR SEQ ID NO:7:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 20 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..20
- (D) OTHER INFORMATION: /note= "oligo 16bc"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

CCAACTCTTC GCGGTGGCAG

20

(2) INFORMATION FOR SEQ ID NO:8:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 30 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..30
- (D) OTHER INFORMATION: /note= "oligo 21"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

GCTCTAGAAT GAACGGTGGG AGGCGGCAGG

30

(2) INFORMATION FOR SEQ ID NO:9:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 19 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -

(B) LOCATION: 1..19  
(D) OTHER INFORMATION: /note= "oligo 2lab"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

GCTCTAGAAT GAACGGTGG

19

(2) INFORMATION FOR SEQ ID NO:10:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 15 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

(A) NAME/KEY: -  
(B) LOCATION: 1..15  
(D) OTHER INFORMATION: /note= "oligo 2lab3"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

GCTCTAGAAT GAACG

15

(2) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 11 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

(A) NAME/KEY: -  
(B) LOCATION: 1..11  
(D) OTHER INFORMATION: /note= "oligo 2lab2"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

GCTCTAGAAT G

11

(2) INFORMATION FOR SEQ ID NO:12:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 7 base pairs

- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..7
- (D) OTHER INFORMATION: /note= "oligo 21ab1"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

GCTCTAG

7

(2) INFORMATION FOR SEQ ID NO:13:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..20
- (D) OTHER INFORMATION: /note= "oligo 20/21"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

CATTTTTTGT TTGCTCTAGA

20

(2) INFORMATION FOR SEQ ID NO:14:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..17
- (D) OTHER INFORMATION: /note= "polynucleotide RP2"



(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

CGGGCCAGCA GCTGACA

17

(2) INFORMATION FOR SEQ ID NO:15:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..26
- (D) OTHER INFORMATION: /note= "28S rRNA forward primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

GCTAAATACC GGCACGAGAC CGATAG

26

(2) INFORMATION FOR SEQ ID NO:16:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..20
- (D) OTHER INFORMATION: /note= "28S rRNA forward primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

GCTAAATACC GGCACGAGAC

20

(2) INFORMATION FOR SEQ ID NO:17:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(2) INFORMATION FOR SEQ ID NO:20:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 26 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..26
- (D) OTHER INFORMATION: /note= "28S rRNA reverse primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

GGTTTCACGC CCTCTTGAAC TCTCTC

26

(2) INFORMATION FOR SEQ ID NO:21:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 21 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..21
- (D) OTHER INFORMATION: /note= "28S rRNA reverse primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

GTTTCACGCC CTCTTGAAC T

21

(2) INFORMATION FOR SEQ ID NO:22:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 19 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..19
- (D) OTHER INFORMATION: /note= "28S rRNA reverse primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

GTTTCACGCC CTCTTGAAC

19

(2) INFORMATION FOR SEQ ID NO:23:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 19 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..19
- (D) OTHER INFORMATION: /note= "28S rRNA reverse primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

CTAGTTTCAC GCCCTCTTG

19

(2) INFORMATION FOR SEQ ID NO:24:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 19 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..19
- (D) OTHER INFORMATION: /note= "28S rRNA reverse primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

CTGGTTTCAC GCCCTCTTG

19

(2) INFORMATION FOR SEQ ID NO:25:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..26
- (D) OTHER INFORMATION: /note= "hTR forward primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

GAAGGGCGTA GGC GCCGTGC TTTTGC

26

(2) INFORMATION FOR SEQ ID NO:26:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 27 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..27
- (D) OTHER INFORMATION: /note= "hTR reverse primer"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:

GTTTGCTCTA GAATGAACGG TGGAAGG

27

(2) INFORMATION FOR SEQ ID NO:27:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 20 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..20
- (D) OTHER INFORMATION: /note= "oligo 14bc"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:

CCTGCGGCCT GAAACGGTGA

20

(2) INFORMATION FOR SEQ ID NO:28:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..10
- (D) OTHER INFORMATION: /note= "template region of hTR"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:

CTAACCTAA

10

(2) INFORMATION FOR SEQ ID NO:29:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 451 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(ix) FEATURE:

- (A) NAME/KEY: -
- (B) LOCATION: 1..451
- (D) OTHER INFORMATION: /note= "RNA component of human telomerase (hTR)"

(ix) FEATURE:

- (A) NAME/KEY: misc\_feature
- (B) LOCATION: 46..55
- (D) OTHER INFORMATION: /note= "template region of hTR"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:

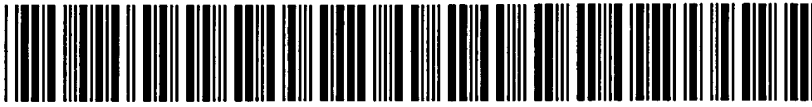
GGGTTGCGGA GGGTGGGCCT GGGAGGGGTG GTGGCCATTT TTTGTCTAAC CCTAACTGAG

60

AAGGGCGTAG GCGCCGTGCT TTTGCTCCCC GCGCGCTGTT TTTCTCGCTG ACTTTCAGCG

120

GGCGGAAAAG CCTCGGCCTG CCGCCTTCCA CCGTTCATTC TAGAGCAAAC AAAAAATGTC 180  
AGCTGCTGGC CCGTTCGCCC CTCCCGGGGA CCTGCGGCGG GTCGCCTGCC CAGCCCCCGA 240  
ACCCCGCCTG GAGGCCGCGG TCGGCCCGGG GCTTCTCCGG AGGCACCCAC TGCCACCGCG 300  
AAGAGTTGGG CTCTGTCAGC CGCGGGTCTC TCGGGGGCGA GGGCGAGGTT CAGGCCTTTC 360  
AGCCCGCAGG AAGAGGAACG GAGCGAGTCC CCGCGCGCGG CGCGATTCCC TGAGCTGTGG 420  
GACGTGCACC CAGGACTCGG CTCACACATG C 451



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Remarks:

Order of re-scan issued on .....